## Abstract

The present invention provides a metallic copper catalyst for use in an ethylene addition reaction to polyfluoroalkyl iodides, a process for efficiently

5 producing a polyfluoroalkylethyl iodide using such a metal copper catalyst in an ethylene addition reaction to a polyfluoroalkyl iodide, and a process for efficiently producing a polyfluoroalkylethyl iodide from a polyfluoroalkyl iodide using the same metallic copper catalyst in a telomerization reaction and a subsequent ethylene addition reaction.